

AMENDMENTS

Amendments to the Claims

- 1-36 (Cancelled)
- 37) (Withdrawn) A composition comprising a safe and effective amount of a lipid hydrolyzing protein or polypeptide and a pharmaceutically acceptable carrier.
- 38) (Withdrawn) The composition of claim 37 wherein the lipid hydrolyzing protein or polypeptide is the protein lysosomal acid lipase.
- 39) (Withdrawn) The composition of claim 37 wherein the lipid hydrolyzing protein or polypeptide is a protein showing at least 85% sequence homology to lysosomal acid lipase.
- 40) (Withdrawn) The composition of claim 37 wherein said lipid hydrolyzing protein or polypeptide is a polypeptide possessing similar biological activity as lysosomal acid lipase.
- 41) (Withdrawn) The composition of claim 37 wherein said lipid hydrolyzing protein or polypeptide is a protein having a Ser¹⁵³ residue.
- 42) (Withdrawn) The composition of claim 37 wherein said lipid hydrolyzing protein or polypeptide is a polymorphic variant protein of lysosomal acid lipase with substitution of amino acid Pro(-6) to Thr and Gly2 to Arg.
- 43) (Withdrawn) The composition of claim 38 wherein the lysosomal acid lipase has fewer than six N-linked acetylglycosylation residues.
- 44) (Withdrawn) The composition of claim 38 wherein the lysosomal acid lipase has more than six N-linked acetylglycosylation residues.
- 45) (Withdrawn) The composition of claim 43 wherein the N-acetylglycosylation residue is oligosaccharide-terminated.
- 46) (Withdrawn) The composition of claim 45 wherein the oligosaccharide terminating residue is a mannose residue.
- 47) (Withdrawn) The composition of claim 44 wherein the N-acetylglycosylation residue is oligosaccharide-terminated.

- 48) (Withdrawn) The composition of claim 47 wherein the oligosaccharide terminating residue is a mannose residue.
- 49) (Withdrawn) A composition comprising a safe and effective amount of lysosomal acid lipase in a pharmaceutically acceptable carrier.
- 50) (Withdrawn) A composition comprising a safe and effective amount of a lipid hydrolyzing protein showing at least 85% sequence homology to lysosomal acid lipase in a pharmaceutically acceptable carrier.
- 51) (Currently Amended) A method for providing biologically active ~~lipid hydrolyzing protein or polypeptide~~ lysosomal acid lipase, or mixtures thereof, to cells, said method comprising administration into cells a vector comprising and expressing a DNA sequence encoding biologically active lysosomal acid lipase ~~lipid hydrolyzing protein or polypeptide~~ wherein the sequence contains the catalytic lipase triad Asp-Ser-His, and expressing the DNA sequence in said cells to produce biologically active lipid hydrolyzing protein or polypeptide lysosomal acid lipase capable of hydrolyzing lipids.
- 52) (Currently Amended) The method of claim 51 wherein the cells harboring the vector secrete the biologically active ~~lipid hydrolyzing protein or polypeptide~~ lysosomal acid lipase which is capable of being taken up by other cells deficient in ~~lipid hydrolyzing protein or polypeptide~~ lysosomal acid lipase.
- 53) (Currently Amended) The method of claim 51 wherein the ~~biologically active human lipid hydrolyzing protein or polypeptide~~ is lysosomal acid lipase cells are atheromatous plaque cells or cells of the liver.
- 54) (Currently Amended) The method of claim ~~[[51]]~~ 53 wherein the ~~biologically active lysosomal acid lipase human lipid hydrolyzing protein or polypeptide~~ is a protein having at least 85% sequence homology to lysosomal acid lipase showing biological activity similar to that of lysosomal acid lipase vector is introduced to the cells ex vivo.
- 55) (Currently Amended) The method of claim ~~[[51]]~~ 53 wherein the ~~biologically active human lipid hydrolyzing protein or polypeptide~~ is a polymorphic variant protein of lysosomal acid lipase with substitution of amino acid Pro(6) to Thr and Gly2 to Arg vector is introduced to the cells in vivo.
- 56) (Currently Amended) ~~A method for providing biologically active lysosomal acid lipase to cells of a mammal, said method comprising administration into said cells a vector~~

~~comprising and expressing a DNA sequence encoding biologically active lysosomal acid lipase and expressing the DNA sequence in said cells to produce biologically active lysosomal acid lipase~~ The method of claim 53, further comprising the administration of exogenously produced lipid hydrolyzing proteins or polypeptides, contained in a pharmaceutically acceptable carrier.

- 57) (Currently Amended) The method of claim ~~[[56]]~~ 51 wherein the cells harboring the vector secrete biologically active lysosomal acid lipase which is capable of being taken up by other cells deficient in lysosomal acid lipase.
- 58) (Currently Amended) The method of claim ~~[[56]]~~ 57 wherein the vector is a viral vector.
- 59) (Currently Amended) The method of claim 58 wherein the viral vector is selected from the group consisting of a lentivirus, adenovirus, adeno-associated virus and virus-like vectors.
- 60) (Currently Amended) The method of claim ~~[[56]]~~ 57 wherein the vector is a plasmid.
- 61) (Currently Amended) The method of claim ~~[[56]]~~ 57 wherein the vector is a lipid vesicle.
- 62) (Withdrawn) A method for providing biologically active lysosomal acid lipase to cells of a mammal with atherosclerosis, comprising administration into the cells of said mammal an amount of a vector comprising and expressing a DNA sequence encoding lysosomal acid lipase and which is effective to transfect and sustain expression of biologically active lysosomal acid lipase in cells deficient therein.
- 63) (Withdrawn) The method of claim 62 wherein the expressed lysosomal acid lipase is secreted from the infected cells and is taken up by other cells deficient therein.
- 64) (Withdrawn) A method for treatment of Wolman's Disease in a mammal comprising administering to said mammal a safe and effective amount of lysosomal acid lipase sufficient to treat said condition.
- 65) (Withdrawn) A method for treatment of Cholesteryl Ester Storage Disease in a mammal comprising administering to said mammal a safe and effective amount of lysosomal acid lipase sufficient to treat said condition.
- 66-68 (Canceled)